

Our Science Learning Journey

Key vocabulary:

Waterproof

Absorbent

Robust

Transparent

Suitability

Non-flammable

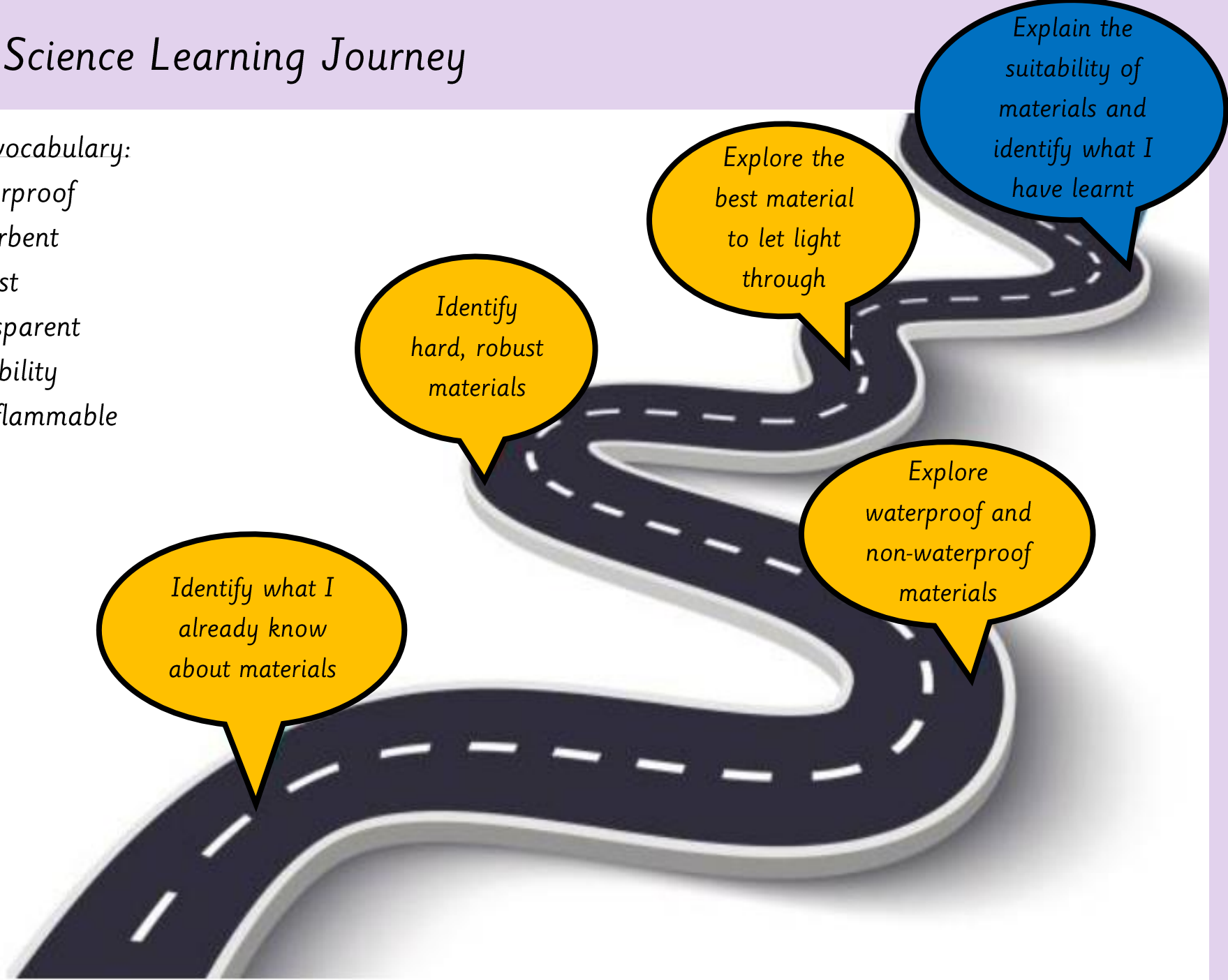
Identify what I
already know
about materials

Identify
hard, robust
materials

Explore the
best material
to let light
through

Explore
waterproof and
non-waterproof
materials

Explain the
suitability of
materials and
identify what I
have learnt



Monday 26th January 2026

LQ: Can I explore the best material to let light through?

Monday 26th January 2026



LQ: Can I explore the best material to let light through?

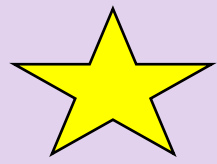
Steps to Success

All – I know the meaning of transparent.

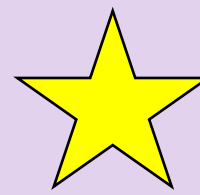
Most – I can identify transparent materials.

Some – I can explain the suitability of a material.

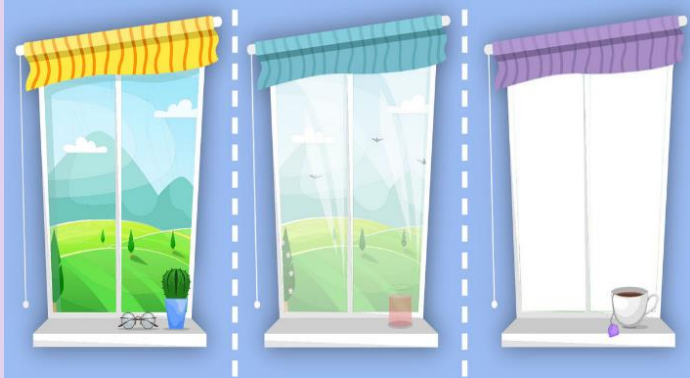




STAR WORDS



translucent



transparent

opaque



suitability



predict



method



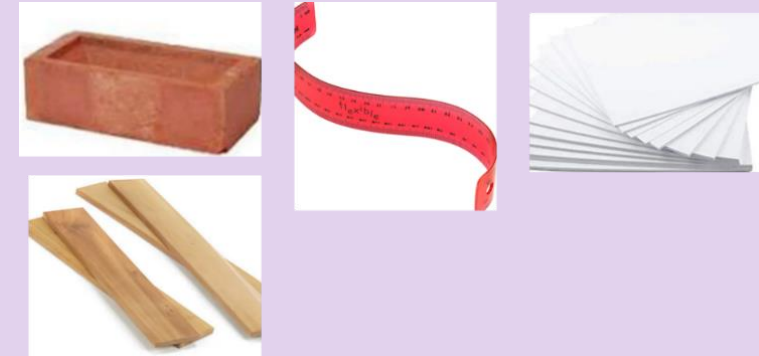
light

Recap

Last week we investigated the most suitable material to rebuild London's buildings.



TPs: What does robust mean?
What does non-flammable mean?



Sentence starters:

_____ is a strong, robust material since..

The most non-flammable material was _____ because...

_____ is not a strong, robust material since..

_____ is non-flammable which means....

Today we are going to explore the best material to make windows.

TPs:

What do we use windows for?

Why do we need them?

What properties do we need for a window?

What is a suitable material for a window?



Transparent

Allows all or most light to travel through.

It's possible to see clearly through transparent materials.



Translucent

Allows some light to pass through.

It's not possible to see through translucent materials.



Opaque

Blocks all light from passing through.

It is not possible to see through opaque materials.

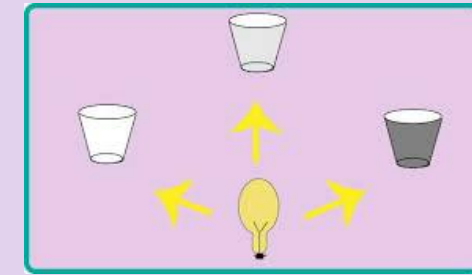


We mainly use windows to look through and to let light in. This means that windows need to be transparent.

TPs: Do windows need any other properties?

Yes, they also need to be waterproof for rain and strong for winds.

Today we are going to conduct an experiment to test the most suitable material for a window by testing if it is transparent, waterproof and robust.



We need to see whether the material will let light through.

Here are the materials that we will test;

brick (clay)



cupboard (wood)



foil (metal)



a glass (glass)



a container (plastic)



You are now going to **predict** if you think you these materials are transparent.
Tell your partner your predictions.

Here are the materials that we will test;

foil (metal)



a container (plastic)



a glass (glass)



cupboard (wood)



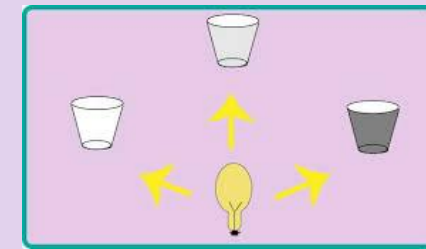
brick (clay)



Sentence starters:

I predict that _____ will be transparent.

I predict that _____ will be opaque.



Now write your predictions in your books.

Here are the materials that we will test;

foil (metal)



a container (plastic)



a glass (glass)



cupboard (wood)



brick (clay)



Sentence starters:

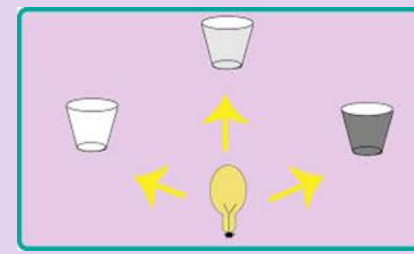
I predict that _____ will be transparent.

I predict that _____ will be opaque.

Self Assessment

Do you understand what to do?





Method

How we are going to do it.

1. Choose a material to test first.
2. Use a torch to test if the light shines through the material.
3. Drop a little bit of water on it.
4. Blow it to see whether it is strong and robust.
5. Watch closely and observe.
6. Do the test again using a different material.

TPs: Can you see through it?
Is it transparent or opaque?
Did it let water through?
Is it waterproof or non-waterproof?
Why/Why not?
Did it let the wind through?
Is it suitable for a window?

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translucent



light



transparent

opaque

Task



a container (plastic)



a glass (glass)



brick (clay)



foil (metal)



cupboard (wood)

Self Assessment

Do you understand what to do?



Complete the sentence starters in your books.

Sentence starters:

The most transparent material was _____.

_____ is the best material because it is transparent, robust and waterproof.

_____ is not a suitable material for a window because.....

Assessment

- *All: I know that buildings are made with bricks.*
- *Most: I know that the materials for a building should be waterproof, robust and non-flammable.*
- *Some: I can explain why the materials for a building should be waterproof, robust and non-flammable.*

1. *What materials are used to make buildings?*
2. *How can the shapes of objects can be changed?*
3. *Why is it Important for materials to be waterproof for a building?*
4. *Which materials are strong and non-flammable to build a bakery?*
5. *Why do windows need to be transparent?*
6. *What materials are suitable for building a bakery?*